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HELP IN A MINUTE;

OR,

WHAT TO DO,

AND

HOW TO DO IT,

IN CASES OF

Burning, Scalding, Poisoning, Drowning,
Suffocation, fits,

ETC. ETC.

BY J. W. GREEN,

AUTHOR OF NUMEROUS USEFUL WORKS.

MOTTO—"LATRAT SCINTILLA FORSAN."

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TO

THE ROYAL PATRONESSES,

THE ROYAL VICE-PATRON,

AND

THE PRESIDENT AND COUNCIL

OF THE

ROYAL HUMANE SOCIETY,

THIS LITTLE WORK

IS

MOST RESPECTFULLY DEDICATED

BY

THE AUTHOR.



TO ALL WHO VALUE LIFE.

Reader! Do you stand in the relationship of Father, Mother, Husband, Wife, Son, Daughter, Brother, Sister, or Friend, in this world ?

If you be Father or Mother, this book concerns you.

If you be Husband or Wife, this book concerns you.

If you be Son or Daughter, this book concerns you.

If you be Brother or Sister, this book concerns you.

If you be Friend to your fellow-creature, the cause of humanity calls aloud, and says it concerns you.

When we consider “the thousand ills that flesh is heir to,” the numerous casualties to which we are all hourly liable, who will stand unprepared when ONE SINGLE SHILLING will procure the INSTANT REMEDY ?

Life is valuable, and in proportion to its value, has it been the endeavour to render this little work, by its fidelity and trustworthiness, deserving of deep confidence.

That it may be found in every house, that it may have frequent preparatory reading IN CASE OF NEED, and that it may prove eminently serviceable is the most devout wish of

THE AUTHOR.

CONTENTS.

	Page
BURNS AND SCALDS	1
POISONS	4
<i>Mineral Substances—Arsenic, &c.</i>	<i>6</i>
<i>Vegetable Substances—Opium, Nightshade, Mushrooms, Monkswood, Henbane, Poppy, Hemlock, &c.</i>	<i>8</i>
BITES OF POISONOUS ANIMALS	10
<i>Of a Mad Dog</i>	<i>10</i>
<i>Of an Adder or Viper</i>	<i>19</i>
APOPLEXY	22
DROWNING	27
<i>Treatment of Persons Drowned</i>	<i>30</i>
FAINTING FITS	37
INTOXICATION	43
SUFFOCATION AND STRANGLING	47
<i>By Hanging</i>	<i>47</i>
<i>By Convulsion Fits</i>	<i>50</i>
<i>By Stoppage in the Throat</i>	<i>54</i>
COUP DE SOLEIL	61
FROST-BITTEN	62
ACCIDENT, what to do in cases of	63
<i>Fractured Bones</i>	<i>63</i>
BLOOD-LETTING	70
APPENDIX.	
SCALDS AND BURNS	77
POISONS	81
<i>Mineral Poisons</i>	<i>81</i>
<i>Vegetable Poisons</i>	<i>84</i>
<i>Aerial Poisons</i>	<i>90</i>
<i>Animal Poisons</i>	<i>93</i>

1
2
3
4
5

INTRODUCTION.

IT IS CERTAIN THAT LIFE, WHEN TO ALL APPEARANCE LOST, MAY OFTEN, BY DUE CARE, BE RESTORED. Accidents frequently prove fatal, merely because proper means are not used to counteract their effects. No person ought to be looked upon as killed by any accident, unless where the structure of the heart, brain, or some organ necessary to life is evidently destroyed. The action of these organs may be so far impaired as even to be for some time imperceptible, when life is by no means gone. Thus, when motion of the lungs has been stopped by unwholesome vapour, the action of the heart by a stroke upon the breast, or the functions of the brain by a blow on the head,—if the person be suffered to grow cold he will in all probability continue so; but if the body be kept warm, as soon as the injured part has recovered its power of acting, the

INTRODUCTION.

fluid will again begin to move, and all the vital functions will be restored.

It is a horrid custom immediately to consign over to death every person who has the misfortune, by a fall, a blow, or the like, to be deprived of the appearance of life. The unhappy person, instead of being carried into a warm house, and laid by the fire, or put into a warm bed, is generally hurried away to a church or a barn, or some other cold damp house, where, after a fruitless attempt has been made to bleed him, perhaps by one who knows nothing of the matter, he is given over for dead, and no further notice taken of him. This conduct seems to be the result of ignorance, supported by an ancient superstitious notion, which forbids the body of any person killed by accident to be laid in a house that is inhabited. What the ground of this superstition may be, we shall not pretend to inquire: but surely the conduct founded upon it is contrary to all principles of reason, humanity, and common sense.

When a person seems to be suddenly deprived of life, our business is to INQUIRE INTO THE CAUSE. We ought carefully to observe whether any substance

be lodged in the windpipe or gullet, and if that be the case, attempts must be made to remove it. When unwholesome air is the cause, the patient ought immediately to be removed out of it. If the circulation be suddenly stopped from any cause whatever, except mere weakness, the patient should be bled: if the blood does not flow, he may be immersed in warm water, or rubbed with warm cloths, &c., to promote the circulation. When the cause cannot be suddenly removed, our great aim must be to keep up the vital warmth, by rubbing the patient with hot cloths or salt, and covering his body with warm sand, ashes, or the like.

We will now proceed to treat more fully of those accidents which, without immediate assistance, would often prove fatal; and to point out the most likely means for relieving the unhappy sufferers.

*The Remedies given in the body of this
little Work are such as are always to be found
in every house. For Medical Treatment see
the Appendix.*



BURNS AND SCALDS.

REMEDY.

SMEAR THE BURNT OR SCALDED PLACE WITH A FEATHER DIPPED IN SWEET OIL ; THEN SPRINKLE IT THICKLY WITH FLOUR.

You will find it stop the pain immediately. When the flour comes off, spread more ; and so on till the wound is healed.

If a *serious case*, keep the patient quiet ; *bowels open* ; low diet, &c. If you find him getting weak, support his strength with wine, arrow-root, fresh meat, broths, &c.

Or,

STRONG SOLUTION OF CARBONATE OF SODA, applied with linen rags, *frequently* repeated.

Or,

SIMPLE FLOUR THICKLY SPRINKLED ON THE INJURED PART, when wetted with cold water, and to be repeated as often as the fire returns, till the pain ceases.

Or,

LINSEED OIL AND LIME WATER, IN EQUAL PARTS, form an excellent emollient cooling application to burns produced by gunpowder, where the skin is less destroyed. In some cases Goulard's Cerate and a weak solution of sugar of lead more quickly procure ease.

When the burn has penetrated so deep as to blister or break the skin, it must be dressed with the emollient and gentle drying ointment, commonly called Turner's Cerate. This may be mixed with an equal quantity of fresh olive oil, and spread upon a soft rag, and applied to the part affected. When this ointment cannot be had, an egg may be beat up, with about an equal quantity of the sweetest salad oil. This will serve very well till a proper ointment can be prepared. When the burning is very deep, after the first two or three days, it should be dressed with equal parts of *yellow basilicon* and *Turner's Cerate*, mixed together.

When the burn is severe, or has occasioned a high degree of inflammation, and there is reason to fear gangrene or a mortification, the same means must be used to prevent it as are recommended in other violent inflammations. The patient in this case must live low, and drink freely of weak diluting liquids. He must likewise be bled, and have his body kept open. But if the burnt parts should

become livid or black, with other symptoms of mortification, it will be necessary to call in a doctor.

The sores resulting from burns are, perhaps, more disposed than any other ulcers to form large granulations, which are considerably above the level of the surrounding skin: at this stage no poultices should be used. The sores should be dressed with Turner's Cerate and basilicon, mixed with a little red precipitate; and if the part will allow of the application of a roller, the pressure will be of great service in keeping down the granulations, (commonly called proud flesh) and rendering them more healthy.

POISONS.

REMEDY.

Large quantities of warm milk and salad oil should be drunk by the patient till he vomits freely.

Or,

Fresh butter may be melted and mixed with milk or water, where oil cannot be got.

For nightshade berries, considerable quantities of *strong* coffee should be drunk.

Every person ought to be acquainted with the nature and cure of Poisons.

They are generally taken *unawares*, and their effects are often so sudden and violent *as not to admit of delay, or allow time to procure the assistance of a medical man.* Happily, indeed, no great degree of medical knowledge is here necessary; *the remedies for most poisons being generally at hand or*

easily obtained, and nothing but common prudence needful in the application

The vulgar notion that every poison is cured by some counter-poison, as a specific, has done much harm. *People believe they can do nothing for the patient, unless they know the particular antidote to that kind of poison which he has taken.* WHEREAS THE CURE OF ALL POISONS TAKEN INTO THE STOMACH, WITHOUT EXCEPTION, DEPENDS CHIEFLY ON DISCHARGING THEM AS SOON AS POSSIBLE.

There are no cases wherein the indications of cure are more obvious. Poison is seldom long in the stomach before it occasions an inclination to vomit. This shows plainly what ought to be done. Indeed, common sense dictates to every one, that if any thing has been taken into the stomach which endangers life, it ought immediately to be discharged. Were this duly regarded, the danger arising from poisons might generally be avoided. The method of prevention is obvious, and the means are in the hands of every one.

Poisons either belong to the mineral, the vegetable, or the animal kingdom.

MINERAL POISONS are commonly of an acrid or corrosive quality, as arsenic, cobalt, the corrosive sublimate of mercury, &c.

Those of the VEGETABLE kind are generally of a narcotic or stupefactive quality, as *poppy, hemlock, henbane, berries of the deadly nightshade, &c.*

POISONOUS ANIMALS communicate their infection either by the bite or sting. This poison is very dif-

ferent from the former, and only produces its effects when received into the body by a wound.

MINERAL POISONS.

REMEDY.—As on page 4.

ARSENIC is the most common of this class, and as the whole of them are pretty similar both in their effects and method of cure, what is said with respect to it, will be applicable to every other species of corrosive poison.

When a person has taken arsenic, he soon feels a burning heat, and a violent pricking pain in his stomach and bowels, with an intolerable thirst and an inclination to vomit. The tongue and throat feel rough and dry, and if proper means be not soon administered, the patient is seized with great anxiety, hiccuping, faintings, and coldness of the extremities.

On the first appearance of these symptoms the patient should drink large quantities of new milk and salad oil till he vomits, or he may drink warm water mixed with oil; fat broths are likewise proper, provided they can be got ready in time. Where

no oil is to be had, fresh butter may be melted and mixed with the milk or water. These things are to be drunk as long as the inclination to vomit continues. Some have drunk eight or ten English quarts before the vomiting ceases; and it is never safe to leave off drinking while one particle of the poison remains in the stomach.

These oily or fat substances not only provoke vomiting, but likewise blunt the acrimony of the poison, and prevent its wounding the bowels; but if they should not make the person vomit, half a drachm or two scruples of the powder of ipecacuanha must be given, or a few spoonfuls of the oxymel or vinegar of squills may be mixed with the water which he drinks. Vomiting may likewise be excited by tickling the inside of the throat with a feather. Should these methods, however, fail, half a drachm of white vitriol, or five or six grains of emetic tartar must be administered.

IF TORMENTING PAINS ARE FELT IN the lower belly, and there is reason to fear that the poison has got down to the intestines, clysters of milk and oil must be very frequently thrown up, and the patient must drink emollient decoctions of barley, oatmeal, marshmallows, and such like. He must likewise take an infusion of senna and manna, a solution of Glauber's salts, or some other purgative.

After the poison has been evacuated, the patient ought for some time to live upon such things as are of a healing and cooling quality, to abstain from flesh and all strong liquors, and to live upon milk,

broth, gruel, light puddings, and other spoon meats of easy digestion. His drink should be barley-water, linseed tea, or infusion of any of the mild mucilaginous vegetables.

VEGETABLE POISONS.

REMEDY.—As on page 4.

Besides heat and pains of the stomach, Vegetable Poisons *commonly occasion some degree of giddiness, and often a kind of stupidity or folly.* Persons who have taken these poisons must be treated in the same manner as for the mineral or corrosive.

Though the vegetable poisons when allowed to remain in the stomach, often prove fatal, yet the danger is generally over as soon as they are discharged. Not being of such caustic or corrosive nature, they are less apt to wound or inflame the bowels than mineral substances. No time, however, ought to be lost in having them discharged.

OPIUM *being frequently taken by mistake, merits particular attention.* It is used as a medicine, both in a solid and liquid form, which latter commonly goes by the name of laudanum. It is indeed a valuable medicine when taken in proper quantity;

but as an overdose proves a strong poison, we shall point out its common effects, together with the method of cure.

An overdose of opium, generally occasions great drowsiness, with stupor and other apoplectic symptoms. Sometimes the person has so great an inclination to sleep, that it is almost impossible to keep him awake. Every method must, however, be tried for this purpose. He should be tossed, shaken, and moved about. Sharp blistering plasters should be applied to the legs or arms, and stimulating medicines, as salts of hartshorn, &c., held under his nose. It will also be proper to let blood. At the same time every method must be taken to make him discharge the poison. This may be done in the manner before mentioned—viz., by the use of strong vomits, drinking plenty of warm water with oil, &c.

Dr. Mead, besides vomits in this case, recommends acid medicines, with lixivial salts. He says that he has often given salts of wormwood, mixed with juice of lemon, in repeated doses, with great success.

If the body should remain weak and languid after the poison has been discharged, nourishing diet and cordials will be proper; but where there is reason to fear that the stomach or bowels are inflamed, the greatest circumspection is necessary, both with regard to food and medicine.

BITES OF POISONOUS ANIMALS.

THE MAD DOG.—We shall begin with the bite of a mad dog, as it is the most common and dangerous animal poison in this country.

The creatures naturally liable to contract this disease are, as far as we yet know, all of the dog kind—viz., foxes, dogs, and wolves: hence it is called the *rabies canina*, or dog madness. Of the last we have none in this island, and it so seldom happens that any person is bit by the first, that they scarce deserve to be taken notice of. If such a thing should happen, the method of treatment is precisely as for the bite of a mad dog.

The *symptoms* of madness in a dog are as follows: At first he looks dull, shows an aversion to food and company; he does not bark as usual, but seems to murmur; is peevish, and apt to bite strangers; his ears and tail droop more than usual, and he appears drowsy; afterwards he begins to loll out his tongue, and froth at the mouth; his eyes seem heavy and watery: he now, if not confined, takes off—runs panting along, with a kind of dejected air, and endeavours to bite every one he meets. Other dogs are said to fly from him; some think this is a certain sign of madness, supposing that they know him by the smell; but it is not to be depended on. If he escapes being killed, he seldom runs above two or three days, when he dies, exhausted with hunger and fatigue.

This disease is most frequent after long, dry, hot seasons ; and such dogs as live upon putrid, stinking carrion, without having enough of fresh water, are most liable to it.

When any person has been bit by a dog, the strictest inquiry ought to be made whether the animal was really mad. Many disagreeable consequences arise from neglecting to ascertain this point. Some people have lived in continual anxiety for many years, because they had been bit by a dog which they believed to be mad; but, as he had been killed on the spot, it was impossible to ascertain the fact. This should induce us, *instead of killing a dog the moment he has bit any person, to do all in our power to keep him alive, at least till we be certain whether he be mad or not.*

Many circumstances may contribute to make people imagine a dog mad. He loses his master, runs about in quest of him, is set upon by other dogs, and perhaps by men. The creature thus frightened, beat and abused, looks wild, and lolls out his tongue as he runs along. Immediately a crowd is after him; while he, finding himself closely pursued, and taking every one he meets for an enemy, naturally attempts to bite him in self-defence. He soon gets knocked on the head, and it passes current that he was mad, as it is then impossible to prove the contrary.

This being the true history of by far the greater part of those dogs which pass for mad, is it any wonder that numberless whimsical medicines have been extolled for preventing the effects of their bite?

This readily accounts for the great variety of *infallible remedies* for the bite of a mad dog which are to be met with in almost every family. Though not one in a thousand has any claim to merit, yet they are all supported by numberless vouchers. No wonder that imaginary diseases should be cured by imaginary remedies. In this way credulous people first impose upon themselves and then deceive others; the same medicine which was supposed to prevent the effects of the bite when the dog was not mad, is recommended to a person who has had the misfortune to be bit by a dog that was really mad. He takes it, he trusts to it, and is undone.

To these mistakes we must impute the frequent ill success of the medicines used for preventing the effects of the bite of a mad dog. It is owing not so much to a defect in medicine as to wrong application. I am persuaded if proper medicines were administered immediately after the bite is received, and continued for a sufficient length of time, we should not lose one in a thousand of those who have the misfortune to be bit by a mad dog.

This poison is generally communicated by a wound, which, nevertheless, heals as soon as a common wound, but afterwards it begins to feel painful, and as the pain spreads to the neighbouring parts, the person becomes heavy and listless. His sleep is unquiet, with frightful dreams: he sighs, looks dull, and loves solitude. These are the fore-runners,—or rather the first symptoms of that dreadful disease, occasioned by the bite of a mad

dog. But, as we do not propose to treat fully of the disease itself, but to point out the method of preventing it, we shall not take up time in showing its progress from the first invasion to its commonly fatal end.

The common notion that this poison may lie in the body for many years, and afterwards prove fatal, is both hurtful and ridiculous. It must render such persons as have had the misfortune to be bit very unhappy, and can have no good effects. If the person takes proper medicine for *forty days* after the time of his being bit, and feels no symptoms of the disease, there is reason to believe him out of danger.

The medicines recommended for preventing the effects of the bite of a mad dog are chiefly such as promote the different secretions, and antispasmodics.

We shall here mention the famous East Indian specific, as it is called. This medicine is composed of cinnabar and musk. It is esteemed a great antispasmodic, and by many extolled as an infallible remedy for preventing the effects of the bite of a mad dog.

“Take native and factitious cinnabar, of each twenty-four grains; musk, sixteen grains. Let these be made into a fine powder, and taken in a glass of brandy.”

The following is likewise reckoned a good antispasmodic medicine :—

“Take of

“Virginia snake-root, in powder, half a drachm;

"Gum-assafœtida, twelve grains ;

"Gum-camphor, seven grains : make these into a bolus, with a little syrup of saffron."

Camphor may also be given in the following manner:—

"Take purified nitre half an ounce ;

"Virginia snake-root in powder, two drachms ;

"Camphor, one drachm ;

"Rub them together in a mortar, and divide the whole into ten doses."

Mercury is likewise recommended as of great efficacy, both in the prevention and cure of this kind of madness. When used as a preventive, it will be sufficient to rub daily a drachm of this ointment into the parts about the wound.

Vinegar is likewise of considerable service, and should be taken freely either in the patient's food or drink.

These are the principal medicines recommended for preventing the effects of the bite of a mad dog. We would not, however, advise people to trust to any one of them, but from a proper combination of their different powers, there is the greatest reason to hope for success.

The great error in the use of these medicines lies in not taking them for a sufficient length of time. They are used more like charms than medicines intended to produce any change in the body. To this, and not to the insufficiency of the medicines, we must impute their frequent want of success.

If a person be bit in a fleshy part, where there is

no hazard of hurting any large blood vessel, the parts adjacent to the wound may be cut away. But if this be not done soon after the bite has been received, it will be better to omit it.

The wound may be dressed with salt and water, or a pickle made of vinegar and salt, and afterwards dressed twice a day with yellow basilicon mixed with red precipitate of mercury.

During this course, the patient must rub into the parts about the wound daily, one drachm of the mercurial ointment. This may be done for ten or twelve days at least.

When this course is over, he may take a purge or two, and wait a few days till the effect of the mercury be gone off. He must then begin to use the cold bath, into which he may go every morning for five or six weeks. If he should feel cold and chilly for a long time after coming out of the bath, it will be better to have the water a little warmed.

In the meantime, we would advise him not to leave all internal medicines, but to take either one of the boluses of snake-root, assafœtida, and camphor, or one of the powders of nitre, camphor, and snake-root, twice a day. These may be used during the whole time of bathing.

During the use of mercurial ointment, the patient must be kept within doors, and not take cold.

A proper regimen must be observed throughout the whole course. The patient must abstain from flesh, and all salted and high-seasoned provisions. He must avoid strong liquors, and live mostly upon

a light and spare diet. His mind should be kept as easy and cheerful as possible, and all excessive heat and violent passion avoided with the utmost care.

I have never seen this course of medicine, with proper regimen, fail to prevent the hydrophobia ; and cannot help again observing, that the want of success must generally be owing either to the application of improper medicines, or not using proper ones for a sufficient length of time.

Mankind are extremely fond of every thing that promises a sudden or miraculous cure. By trusting to these, they often lose their lives, when a regular course of medicine would have rendered them absolutely safe. This holds remarkably in the present case. Numbers of people, for example, believe if they or their cattle were once dipped in the sea, it is sufficient—as if the salt water were a charm against the effects of a bite. This and such like whims have proved fatal to many.

It is a common notion, if a person be bit by a dog which is not mad, that if he should go mad afterwards, the person would be affected with the disorder at the same time ; but this notion is too ridiculous to receive a serious consideration. It is a good rule, however, to avoid dogs as much as possible, as the disease is often upon them for some time before its violent symptoms appear. The hydrophobia has been occasioned by the bite of a dog which showed no other symptoms of the disease but listlessness and a sullen disposition.

Though we do not mean to treat fully of the cure

of the hydrophobia, yet we are far from reckoning it incurable. The notion that this disease could not be cured has been productive of the most horrid consequences. It was usual either to abandon the unhappy persons, as soon as they were seized with the disease, to their fate—to bleed them to death—or to suffocate them between mattresses or feather beds, &c. This conduct certainly deserved the severest punishment. We hope, for the honour of human nature, it will never again be heard of.

Dr. Tissot says it may be cured in the following manner :—

“The patient must be bled to a considerable quantity, and this may be repeated twice or thrice, or even a fourth time, if circumstances require it.

“The patient should be put, if possible, into a warm bath, and this should be used twice a day.

“He should every day receive two, or even three, emollient clysters.

“The wound, and the parts adjoining to it, should be rubbed with the mercurial ointment twice a day.

“The whole limb which contains the wound should be rubbed with oil, and wrapped up in oily flannel.

“Every three hours a dose of Cobb’s powder should be taken in a cup of the infusion of lime tree and elder flowers. This powder is made by rubbing together, in a mortar, to a very fine powder, of native and factitious cinnabar each 24 grains; of musk 16 grains. The Ormskirk medicine, as it is called, seems to me to consist chiefly of cinnabar. Though it is said to be infallible as a preventive,

18 BITES OF POISONOUS ANIMALS, ETC.

yet I would advise no one to trust to it alone. Indeed, it is ordered to be taken in a manner which gives it more the appearance of a charm than of a medicine. Surely, if a medicine is to produce any change in the body, it must be taken for some considerable time, and in sufficient quantity.

"The following bolus is to be given every night, and to be repeated in the morning, if the patient is not easy; washing it down with the infusion mentioned above:—Take one drachm of Virginia snake-root in powder; of camphor and assafœtida ten grains each; of opium one grain; and with a sufficient quantity of conserve, or of elder, make a bolus.

"If there be a great nausea at the stomach, with a bitterness in the mouth, 35 or 40 grains of ipecacuanha, in powder, may be taken for a vomit.

"The patient's food, if he takes any, must be light—as panada, soups made of farinaceous or mealy vegetables, &c.

"If the patient should long continue weak and subject to terrors, he may take half a drachm of the Peruvian bark thrice a day."

We have now given such remedies as are esteemed most valuable for the cure, or rather prevention, of the effects of hydrophobia, and will conclude by urging upon the attention of the friends of those bitten, that the only dependance is upon **A LONG AND STEADY PERSEVERANCE IN THE APPLICATION OF THEM.**

POISON OF THE VIPER.

The next poisonous animal which we shall mention is the viper. The grease of this animal, rubbed into the wound, is said to cure the bite. Though that is all the viper-catchers generally do when bit, we should not think it sufficient for the bite of an enraged viper. It would surely be more safe to have the wound well sucked, and afterwards rubbed with warm salad oil. A poultice of bread and milk, softened with salad oil, should likewise be applied to the wound, and the patient ought to drink freely of vinegar whey, or water-gruel with vinegar in it, to make him sweat. Vinegar is one of the best medicines which can be used in any kind of poison, and ought to be taken very liberally. If the patient be sick, he may take a vomit. This course will be sufficient to cure the bite of any of the poisonous reptiles of this country.

With regard to poisonous insects, as the bee, the wasp, the hornet, &c., their stings are seldom attended with danger, unless when a person happens to be stung by a great number of them at the same time, in which case something should be done to abate the inflammation and swelling. Some for this purpose apply honey; others lay pounded parsley to the parts. A mixture of vinegar and Venice treacle is likewise recommended; but I have always found rubbing the parts with warm salad oil succeeded

20 BITES OF POISONOUS ANIMALS, ETC.

very well. Indeed, when the stings are so numerous as to endanger the patient's life, which is sometimes the case, he must not only have oily poultices applied to the part, but should likewise be bled, and take some cooling medicines—as nitre or cream of tartar—and should drink plentifully of diluting liquors.

It is the happiness of this island to have very few poisonous animals, and those which we have are by no means of the most virulent kind. Nine-tenths of the effects attributed to poison or venom in this country are really other diseases, and proceed from quite different causes.

We cannot, however, make the same observation with regard to poisonous vegetables. These abound everywhere, and prove often fatal to the ignorant and unwary. This, indeed, is chiefly owing to carelessness. Children ought early to be cautioned against eating any kind of fruit, roots, or berries which they do not know; and all poisonous plants to which they can have access ought, as far as possible, to be destroyed. This would not be so difficult a task as some people imagine.

Poisonous plants have no doubt their use, and they ought to be propagated in proper places; but as they prove often destructive to cattle, they should be rooted out of all pasture grounds. They ought likewise, for the safety of the human species, to be destroyed in the neighbourhood of all towns and villages—which, by the bye, are the places where they most commonly abound. I have seen the

poisonous hemlock, henbane, wolfsbane, and deadly nightshade, all growing within the *environs* of a small town, where, though several persons, within the memory of those living in it, had lost their lives by one or more of these plants ; yet no method, that I could hear of, had been taken to root them out, though this might be done at a very trifling expense.

Seldom a year passes but we have accounts of several persons poisoned by eating hemlock roots instead of parsnips, or some kind of fungus which they had gathered for mushrooms. These examples ought to put people upon their guard with respect to the former, and to put the latter out of use. Mushrooms may be a delicate dish, but they are a dangerous one, as they are generally gathered by persons who do not know one kind of fungus from another, and take every thing for a mushroom which has the appearance.

The recent cases of death and imminent peril occasioned by the herb-gatherer, White, who now lies in prison for trial, would not have occurred, had not the most shameful neglect on the part of their parents allowed them to remain ignorant of the fatal properties of nightshade when they were children.

APOPLEXY.

CAUTIONS.

Keep the patient quite cool.

Let the head be raised pretty high ; and let the feet hang down.

Let the clothes be loosened, especially about the neck.

Let the patient be immediately bled.

APOPLEXY is a sudden loss of sense and motion, wherein the patient is to all appearance dead : the heart and lungs, however, still continue to move. Though this disease proves often fatal, yet it may sometimes be removed with proper care. It chiefly attacks sedentary persons of a gross habit, who use a rich and plentiful diet, and indulge in strong liquors. People in the decline of life are most subject to apoplexy. It prevails most in winter, especially in rainy seasons, and a very low state of the *barometer*.

CAUSES.—The immediate cause of an apoplexy is a compression of the brain, occasioned by an excess of blood, or a collection of watery humours. The former is called a *sanguine*, and the latter a *serous* apoplexy. It may be occasioned by anything that increases the circulation towards the brain, or prevents the return of the blood from the head—as intense study, violent passion, viewing objects for a long time obliquely, wearing any thing too tight about the neck, a rich and luxurious diet, suppression of urine, suffering the body to cool suddenly after having been greatly heated, continuing long in a warm or cold bath, the excessive use of spiceries, or high-seasoned food, the sudden striking in of eruptions, suffering issues, setons, &c. suddenly to dry up, or the stoppage of any customary evacuation, a mercurial salivation pushed too far or suddenly checked by cold, wounds, or bruises on the head, long exposure to excessive cold, poisonous exhalations, &c.

SYMPTOMS AND METHOD OF CURE. The usual forerunners of apoplexy are giddiness, pain, and swimming of the head, loss of memory, drowsiness, noise in the ears, the night-mare, a spontaneous flux of tears, and laborious respiration.

When persons of an apoplectic make observe these symptoms, they have good reason to fear the approach of a fit, and should endeavour to prevent it by bleeding, a slender diet, and opening medicines.

In the sanguine apoplexy, if the patient does not

die suddenly, the countenance appears florid, the face is swelled or puffed up, and the blood-vessels, especially about the neck and temples, are turgid; the pulse beats strong, the eyes are prominent and fixed, and the breathing is difficult, and performed with a snorting noise. The excrements and urine are voided spontaneously, and the patient is sometimes seized with vomiting.

In this species of apoplexy every method must be taken *to lessen the force of the circulation towards the head*. The patient should be kept *perfectly easy and cool*. *His head should be raised pretty high, and his feet suffered to hang down*. His clothes ought to be loosened, *especially about the neck, and fresh air admitted into his chamber*. As soon as the patient is placed in a proper posture, he should be bled freely in the neck or arm, and if there be occasion, the operation may be repeated in two or three hours. A laxative clyster, with plenty of sweet oil or fresh butter, and a spoonful or two of common salt in it, may be administered every two hours, and blistering plasters applied between the shoulders, and to the calves of the legs.

As soon as the symptoms are a little abated, and the patient is able to swallow, he ought to drink freely of some diluting liquor, as a decoction of tamarinds and liquorice, cream of tartar whey, or common whey, with cream of tartar dissolved in it. Or he may take any cooling purge, as Glauber's salts, manna, dissolved in an infusion of senna, or *the like*. All spirits, and other strong liquors, are

to be avoided. *Even volatile salts held to the nose do mischief. Vomits for the same reason ought not to be given, nor any thing that may increase the motion of the blood towards the head.*

In the *serous apoplexy* the symptoms are nearly the same, only the pulse is not so strong ; the countenance is less florid, and the breathing less difficult. *Bleeding is not so necessary here as in the sanguine apoplexy* : it may, however, generally be performed once, with safety and advantage, but should not be repeated. The patient should be placed in the same posture as in sanguine apoplexy, and should have blistering plasters applied, and receive clysters in the same manner. Purges are here likewise necessary, and the patient may drink strong balm tea. If he be inclined to sweat, it ought to be promoted by drinking weak wine whey, or an infusion of carduus benedictus. *A plentiful sweat, kept up for a considerable time, has often carried off a serous apoplexy.*

When apoplectic symptoms proceed from opium or other narcotic substances, taken into the stomach, *vomits are necessary*. The patient is generally relieved as soon as he has discharged the poison in this way.

Persons of an apoplectic make, or those who have been attacked by it, ought to use a very spare and slender diet, avoiding all strong liquors, spiceries, and high-seasoned food. They ought, likewise, to guard against all violent passions, and to avoid the extremes of heat and cold. The head should

be shaved, and daily washed with cold water. The feet ought to be kept warm, and never suffered to continue long wet. The body must be kept open, either by food or medicine, and a little blood may be let every spring and fall. Exercise should by no means be neglected, but it ought to be taken in moderation. *Nothing has a more happy effect in preventing an apoplexy than perpetual issues or setons;* great care must, however, be taken not to suffer them to dry up, without opening others in their stead. *Apoplectic persons ought never to go to rest with a full stomach, or lie with their heads low, or to wear anything too tight about their necks.*

DROWNING

To restore the apparently drowned, send quickly for Medical Assistance.

CAUTIONS.

1. Lose no time.
2. Avoid all rough usage.
3. Never hold the body by the feet.
4. Nor roll the body on casks.
5. Nor rub the body with salt or spirits.
6. Nor inject tobacco smoke, or infusion of tobacco.

The following Methods of Treatment are recommended by the ROYAL HUMANE SOCIETY:—

I. Convey the body carefully, with the head and shoulders supported in a raised position, to the nearest house.

II. Strip the body, and rub it dry; then wrap it in hot blankets, and place it in a warm bed, in a warm chamber, free from smoke.

III. Wipe and cleanse the mouth and nostrils.

IV. In order to restore the natural warmth of the body—

1. Move a heated covered warming-pan over the back and spine.

2. Put bladders or bottles of hot water, or heated bricks, to the pit of the stomach, the arm-pits, between the thighs, and to the soles of the feet.

3. Foment the body with hot flannels.

4. Rub the body briskly with the hand. Do not, however, suspend the use of other means at the same time, but if possible—

5. Immerse the body in a warm bath at blood heat, or 91° of the thermometer, or as hot as the hand can bear without pain, as this is preferable to the other means for restoring warmth.

6. Volatile salts or hartshorn to be passed occasionally to and fro under the nostrils.

No more persons to be admitted into the room than are absolutely necessary.

V. In order to restore breathing, introduce the pipe of a common bellows (where the apparatus of the Society is not at hand) into one nostril, carefully closing the other and the mouth, at the same time drawing downwards, and pushing gently backwards the upper part

of the windpipe, to allow a more free admission of air. Blow the bellows gently, in order to inflate the lungs, till the breast be a little raised, the mouth and nostrils should then be set free, and a moderate pressure made with the hand upon the chest. Repeat this process till life appears.

GENERAL OBSERVATIONS.

On the restoration to life a tea-spoonful of warm water should be given, and then, if the power of swallowing be returned, small quantities of warm wine, or weak brandy and water, warm ; the patient should be kept in bed, and a disposition to sleep encouraged, except in cases of apoplexy, intoxication, and coup-de-soleil. Great care is requisite to maintain the restored vital actions, and, at the same time, to prevent undue excitement.

The treatment recommended by the Society is to be persevered in three or four hours.

It is an erroneous opinion that persons are irrecoverable because life does not soon make its appearance ; and it is absurd to suppose that a body must not be meddled with or removed without the permission of the Coroner.

PERSONS DROWNED.

ENCOURAGEMENT.—Dr. Thomas, in his “Modern Practice of Physic,” makes the following observations, which should be borne in mind by those who may be present at such a casualty as the drowning of a fellow-creature:—“Livid and dark brown spots on the face, with great rigidity and coldness of the body, a glassy appearance of the eyes, and a flaccid state of the skin, denote a perfect extinction of life; but the only certain sign is actual putrefaction; and, therefore, in every case where this symptom is not present, and where we are unacquainted with the length of the time the body has been under water, every possible means should be employed immediately upon its being found, for restoring it to life; as the noble machine may be stopped, and the spring, nevertheless, still retain, in some degree, its elastic vigour.

When a person has remained above a quarter of an hour under water there can be no considerable hopes of his recovery. But as several circumstances may happen to have continued life in such an unfortunate situation beyond the ordinary term, we should never too soon resign the unhappy object to *his fate*, but try every method for his relief, as there are many well-attested proofs of the recovery of

persons to life and health, who have been taken out of the water apparently dead, and who remained a considerable time without exhibiting any signs of life.

The first thing to be done, after the body is taken out of water, is to convey it as soon as possible to some convenient place, where the necessary operations for its recovery may be performed. In doing this, care must be taken not to bruise or injure the body, by carrying it in an unnatural posture, with the head downwards, or the like. If an adult body, it ought to be laid on a bed, or on straw, with the head a little raised, and carried on a cart, or on men's shoulders, and kept in as natural and easy a position as possible. A small body may be carried in the arms.

In attempting to recover persons apparently drowned, the principal intention to be pursued is to *restore the natural warmth*, upon which all the vital functions depend; and to excite those functions by the application of stimulants, not only to the skin, but likewise to the lungs, intestines, &c.

Though cold was by no means the cause of a person's death, yet it will prove an effectual obstacle to his recovery. For this reason, after stripping him of his wet clothes, his body must be strongly rubbed for a considerable time with coarse linen cloths, as warm as they can be made; and as soon as a well-heated bed can be got ready, he may be laid in it, and the rubbing should be continued. Warm cloths ought, likewise, to be frequently

applied to the stomach and bowels, and hot bricks or bottles of warm water to the soles of his feet and to the palms of his hands.

Strong volatile spirits should be applied to the nose, and the spine of the back and pit of the stomach may be rubbed with warm brandy, or spirits of wine.

To renew the breathing a strong person may blow his own breath into the patient's mouth; with all the force he can, holding his nostrils at the same time. When it can be perceived, by the rising of the chest or belly, that the lungs are filled with air, the person ought to desist from blowing, and should press the breast and belly, so as to expel the air again, and this operation may be repeated for some time, alternately inflating and depressing the lungs, so as to imitate the natural respiration.

If the lungs cannot be inflated in this manner, it may be attempted by blowing through one of the nostrils, and, at the same time, keeping the other close. Dr. Monro, for this purpose, recommends a wooden pipe, fitted at one end for filling the nostril, and at the other for being blown into by a person's mouth, or for receiving the pipe of a pair of bellows, to be employed for the same purpose, if necessary.

When the air cannot be forced into the chest by the mouth or nose, it may be necessary to make an opening into the windpipe for this purpose. It is needless, however, to spend time in describing this operation, as it should not be attempted unless by persons skilled in surgery.

To stimulate the intestines the fumes of tobacco may be thrown up in form of clyster. There are various pieces of apparatus contrived for this purpose, which may be used when at hand, but when these cannot be obtained, the business may be done by a common tobacco pipe. The bowl of the pipe must be filled with tobacco, well kindled, and after the small tube has been introduced into the fundament, the smoke may be forced by blowing through a piece of paper full of holes, wrapped round the mouth of the pipe, or by blowing through an empty pipe, the mouth of which is applied close to that of the other. This may also be done in the following manner:—A common clyster-pipe, with a bag mounted upon it, may be introduced into the fundament, and the mouth of the bag may be applied round the small end of a tobacco-pipe, in the bowl of which tobacco is to be kindled, and the smoke blown up as directed above. Should it be found impracticable to throw up the smoke of tobacco, clysters of warm water, with the addition of a little salt, or some wine or spirits may be frequently administered. This may be done by a common clyster bag and pipe, but as it ought to be thrown up well a pretty large syringe will answer the purpose better.

While these things are doing, some of the attendants ought to be preparing a warm bath, into which the person should be put, if the above endeavours prove ineffectual. Where there are no conveniences for using the warm bath, the body may be covered

with warm salt, sand, ashes, grains, or such like. Dr. Tissot mentions an instance of a girl who was restored to life after she had been taken out of the water swelled, bloated, and to all appearances dead, by laying her naked body upon hot ashes, covering her with others equally hot, putting a bonnet round her head, and a stocking round her neck, stuffed with the same, and heaping coverings over all. After she had remained half an hour in this situation her pulse returned ; she recovered speech, and cried out—“*I freeze ! I freeze !*” A little cherry brandy was given her, and she remained buried, as it were, under the ashes for eight hours. Afterwards she was taken out, without any other complaint, except that of lassitude or weariness, which went off in a few days.

The Doctor mentions, likewise, an instance of a man who was restored to life after he had remained six hours under water, by the heat of a dunghill.

Till the patient shows some signs of life, and is able to swallow, it would be dangerous to pour liquors into his mouth. His lips, however, and tongue, may be frequently wet with a feather dipped in warm brandy, or other strong spirits, and as soon as he has recovered the power of swallowing, a little warm wine, or some other cordial, ought every now and then to be administered.

Some recommend a vomit after the patient is a little reanimated, but if he can be made to throw up without the sickening draught, it will be more safe ; this may generally be done by tickling the

throat and fauces with an oiled feather, or some other soft substance, which will not injure the parts. Dr. Tissot, in this case, recommends the oxymel of squills, a table spoonful of which, diluted with water, may be given every quarter of an hour, till the patient has taken five or six doses. Where that medicine is not at hand, a strong infusion of sage, camomile flowers, or *carduus benedictus*, sweetened with honey or some warm water, with the addition of a little salt, may, says he, supply its place. The Doctor does not intend that any of these things should be given in such quantity as to occasion vomiting: he thinks emetics in this situation are not expedient.

We are by no means to discontinue our assistance as soon as the patients discover some token of life, since they sometimes expire after these first appearances. The warm and stimulating applications are still to be continued, and small quantities of some cordial liquor ought frequently to be administered. Lastly, though the person should be manifestly reanimated, there sometimes remains an oppression, a cough, and feverishness, which effectually constitute a disease. In this case it will be necessary to bleed the patient in the arm, and to cause him to drink plentifully of barley-water, elder flower tea, or any other soft pectoral infusions.

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Such persons as have the misfortune to be deprived of the appearances of life by a fall, a blow, *suffocation*, or the like, must be treated nearly in

the same manner as those who have been for some time under water. I once attended a patient who was so stunned by a fall from a horse, that for above six hours he scarcely exhibited any signs of life; yet this man, by being bled, and proper methods taken to keep up the vital warmth, recovered, and in a few days was perfectly well. Dr. Alexander gives an instance to the same purpose, in the *Edinburgh Physical and Literary Essays*, of a man who was to all appearance killed by a blow on the breast, but recovered upon being immersed for some time in warm water. These, and other instances of a similar nature which might be adduced, amount to a full proof of this fact, that many of those unhappy persons who lose their lives by falls, blows, and other accidents, might be saved *by the use of proper means, duly persisted in.*

FAINTING FITS.

STRONG and healthy persons, who abound with blood, are often seized with fainting fits after violent exercise, drinking freely of warm or strong liquors, exposure to great heat, intense application to study, or the like.

In such cases the patient should be made to smell vinegar. His temples, forehead, and wrists ought at the same time to be bathed with vinegar, mixed with an equal quantity of warm water, and two or three spoonfuls of vinegar, with four or five times as much water, may, if he can swallow, be poured into his mouth.

If the fainting proves obstinate, or degenerates into a syncope, (that is, a deprivation of feeling and understanding) the patient must be bled. After the bleeding a clyster will be proper, and then he should be kept easy and quiet, only giving him every half hour a cup or two of an infusion of any mild vegetable, with the addition of a little sugar and vinegar.

When swoonings, which arise from this cause, occur frequently in the same person, he should, in



order to escape them, confine himself to a light diet, consisting chiefly of bread, fruits, and other vegetables. His drink ought to be water or small beer, and he should sleep but moderately, and take much exercise.

But fainting fits proceed much oftener from a defect than an excess of blood. Hence they are very ready to happen after great evacuations of any kind, prolonged watching, want of appetite, or such like. In these an almost directly opposite course to that mentioned above must be pursued.

The patient should be laid in bed with his head low, and being covered should have his legs, thighs, arms, and his whole body rubbed strongly with hot flannels. Hungary water, volatile salts, or strong smelling herbs, as rue, mint, or rosemary, may be held to his nose. His mouth may be wet with a little rum or brandy, and if he can swallow, some hot wine, mixed with sugar and cinnamon, which is an excellent cordial, may be poured into his mouth. A compress of flannel, dipped in hot wine or brandy, must be applied to the pit of his stomach, and warm bricks or bottles filled with hot water, laid to the feet.

As soon as the patient is recovered a little, he should take some strong soup or broth, or a little bread or biscuit, soaked in hot spiced wine. To prevent the return of the fits, he ought to take often, but in small quantities, some light yet strengthening nourishment, as panado, made with soup instead of water, new laid eggs, lightly poached; chocolate, *light roast meat*, jellies, and such like.

Those fainting fits, which are the effect of bleeding, or of the violent operation of purges, belong to this class. Such as happen after artificial bleeding are seldom dangerous, generally terminating as soon as the patient is laid on the bed; indeed, persons subject to this kind should always be bled lying, in order to prevent it. Should the fainting, however, continue longer than usual, volatile spirits may be held to the nose, and rubbed on the temples, &c.

When fainting is the effect of too strong or acrid purges or vomits, the patient must be treated in all respects as if he had taken poison. He should be made to drink plentifully of milkwarm water and oil, barley-water, and such like; emollient clysters will likewise be proper, and the patient's strength should afterwards be recruited by giving him generous cordials and anodyne medicines.

Faintings are often occasioned by indigestion. This may proceed either from the quantity or quality of the food.

When the former of these is the case, the cure will be best performed by vomiting, which may be promoted by causing the patient to drink a weak infusion of camomile flowers, *carduus benedictus*, or the like.

When the disorder proceeds from the nature of the food, the patient, as in the case of weakness, must be revived by strong smells, &c.; after which he should be made to swallow a large quantity of light warm fluid, which may serve to drown, as it were, the offending matter, to soften its acrimony.

and either to effect a discharge of it by vomiting, or force it down into the intestines.

Even disagreeable smells will sometimes occasion swoonings, especially in people of weak nerves. When this happens, the patient should be carried into the open air, have stimulating things held to his nose, and those substances which are disagreeable to him ought immediately to be removed. But we have already taken notice of swoonings which arise from nervous disorders, and shall, therefore, say no more upon that head.

Fainting fits often happen in the progress of diseases. In the beginning of putrid diseases they generally denote an oppression at the stomach, or a mass of corrupted humours, and they cease after evacuations by vomit or stool. When they occur at the beginning of malignant fevers, they indicate great danger. In each of these cases vinegar used both externally and internally, is the best remedy during the paroxysm, and plenty of lemon juice after it. Swoonings which happen in diseases accompanied with great evacuations must be treated like those which are owing to weakness; and the evacuations ought to be restrained when they happen towards the end of a violent intermittent fever. The patient must be supported by small draughts of wine and water.

Delicate and hysterick women are very liable to swooning or fainting fits after delivery. These might be often prevented by generous cordials and *the admission of fresh air*. When they are occasioned by excessive flooding, it ought by all means

to be restrained. They are often the effect of mere weakness or exhaustion. Dr. Engleman relates the case of a woman "in childbed, who, after being happily delivered, suddenly fainted, and lay upwards of a quarter of an hour apparently dead. A physician was sent for; her own maid, in the meanwhile, being out of patience at his delay, attempted to assist her herself, and extending herself upon her mistress, applied her mouth to her's, and blew in as much breath as she possibly could, and in a very short time the exhausted woman awaked as out of a profound sleep, when, proper things being given her, she soon recovered.

"The maid being asked how she came to think of this expedient, said 'she had seen it practised at Altenburgh by midwives upon children, with the happiest effect.'"

We mention this case chiefly that other midwives may be induced to follow so laudable an example. Many children are born without any signs of life and others expire soon after the birth, who might, without all doubt, by proper care, be restored to life.

From whatever cause fainting fits proceed, fresh air is always of the greatest importance to the patient. By not attending to this circumstance, people often kill their friends while they are endeavouring to save them. Alarmed at the patient's situation, they call in a crowd of people to his assistance, or perhaps to witness his exit, whose breathing exhausts the air, and increases the danger. There is not the least doubt but this practice, which is *very common* among the lower sort of people, often

proves fatal, especially to the delicate, and such persons as fall into fainting fits from mere exhaustion, or the violence of some disease. No more persons ought ever to be admitted into the room where a patient lies in a swoon than are absolutely necessary for his assistance, and the windows of the apartments should be always opened, at least as far as to admit a stream of fresh air.

Persons subject to frequent swoonings, or fainting fits, should neglect no means to remove the cause of them, as their consequences are always injurious to the constitution. Every fainting fit leaves the person in dejection and weakness; the secretions are thereby suspended; the humours disposed to stagnation; coagulations and obstructions are formed; and if the motion of the blood be totally intercepted or very considerably checked, *polypi* are sometimes formed in the heart or larger vessels. The only kind of swoonings not to be dreaded are those which sometimes mark the *crisis* in fevers; yet even these ought as soon as possible to be removed.

Bleeding should only be practised when it is evident that the fainting fits arise from fulness of the habit, as the use of the lancet, in those cases produced by loss of blood, would have the most injurious effect.

INTOXICATION.

CAUTIONS.

Lay the body in a straight position on the floor, face downwards, or supported on his side, and loosen the clothes, especially about the neck.

In treating of the sudden casualties attendant upon drunkenness, the Author feels a strong desire to omit any notice of them whatever; he wishes heartily that this part of the book may be a dead letter—but as the abstemious and temperate are sometimes surprised—and it is upon such, and not upon “seasoned casks” that the effects are likely to be most severe—he has given such directions as may be useful.

The effects of intoxication are often fatal. No kind of poison kills more certainly than an overdose of ardent spirits. Sometimes by destroying the nervous energy, they put an end to life at once; but in general, their effects are more slow, and in many respects similar to those of opium. Other

kinds of intoxicating liquors may prove fatal, when taken to excess, as well as ardent spirits ; but they may generally be discharged by vomiting, which ought always to be excited when the stomach is overcharged with liquor.

More of those unhappy persons who die intoxicated, lose their lives from an inability to conduct themselves, than from the destructive quality of the liquors. Unable to walk they tumble down, and lie in some awkward posture, which obstructs the circulation of breathing, and often continue in this situation till they die. No drunken person should be left by himself till his clothes have been loosened, and his body laid in such a posture as is most favourable for continuing the vital motion, discharging the contents of the stomach, &c. The best posture for discharging the contents of the stomach, is to lay a person upon his belly ; when asleep he may be laid on his side, with his head a little raised ; and particular care must be taken that his neck be no way bent, twisted, or have anything too tight about it.

The excessive degree of thirst occasioned by drinking strong liquors, often induces people to quench it by taking what is hurtful. I have known fatal consequences even from drinking freely of milk after a debauch of wine or sour punch ; these acid liquors, together with the heat of the stomach, having coagulated the milk in such a manner, that it could never be digested. The safest drink after a debauch is water with a toast, tea, infusions of balm, sage, barley-water, and such like. If the

person wants to vomit, he may drink a weak infusion of camomile flowers, or lukewarm water and oil; but in this condition vomiting may generally be excited by only tickling the throat with the finger or a feather.

Instead of giving a detail of all the different symptoms of intoxication which indicate danger, and proposing a general plan of treatment for persons in this situation, I shall briefly relate the history of a case narrated by Dr. Buchan, wherein most of the symptoms usually reckoned dangerous occurred, and where the treatment was successful.

"A young man," says the Doctor, "had for a wager drunk ten glasses of strong brandy. He soon after fell asleep, and continued in that situation for near twelve hours, till at length the uneasy manner of breathing, the coldness of his extremities, and other threatening symptoms, alarmed his friends, and made them send for me. I found him still sleeping, his countenance ghastly, and his skin covered with cold clammy sweat. Almost the only signs of life remaining were a deep laborious breathing, and a convulsive motion or agitation of his bowels.

"I tried to rouse him but in vain, by pinching, shaking, applying volatile spirits and other stimulating things to his nose, &c. A few ounces of blood were likewise taken from his arm, and a mixture of vinegar and water was poured into his mouth; but as he could not swallow, very little of this got into his stomach; none of these things having the least effect, and the danger seeming to increase, I ordered

his legs to be put into warm water, and a sharp clyster to be immediately administered. This gave him a stool, and was the first thing that relieved him. It was then afterwards repeated with the same happy effect, and seemed to be the chief cause of his recovery. He then began to show some signs of life, took drink when it was offered him, and came gradually to his senses. He continued however, for several days, weak and feverish, and complained much of a soreness in his bowels, which gradually went off by means of a slender diet and cool mucilaginous liquors.

“This young man would probably have been suffered to die without any assistance being called in, had not a neighbour a few days before, who had been advised to drink a bottle of spirits to cure him of an ague, expired under similar circumstances.”

SUFFOCATION, AND STRANGLING FROM HANGING.

The patient should be placed in an easy position, and fresh air should be freely admitted.

PERSONS who feed grossly, and abound in rich blood, are very liable to suffocating fits. Such ought, as soon as they are attacked, to be bled, to receive an emollient clyster, and to take frequently a cup of diluting liquor with a little nitre in it. They should likewise receive the steams of hot vinegar into their lungs, by breathing.

Nervous and asthmatic persons are most subject to spasmodic affections of the lungs. In this case, the patient's legs should be immersed in warm water, and the steams of vinegar applied as above. Warm diluting liquor should likewise be drunk; to a cup of which a tea-spoonful of the paregoric elixir may occasionally be added. Burnt paper, feathers, or leather, may be held to the patient's nose, and fresh air should be freely admitted.

Infants are often suffocated by the carelessness or

inattention of their nurses. An infant, when in bed, should always be laid so that it cannot tumble down with its head under the bed clothes; and when in a cradle, its face ought never to be covered. A small degree of attention to these two simple rules would save the lives of many infants and prevent others from being rendered weak and sickly all their days, by the injuries done to their lungs. These accidents are not always the effects of carelessness—I have known an infant overlaid, by its mother being seized with an hysterical fit. This ought to serve as a caution against employing hysterical women as nurses, and should likewise teach such women never to lay an infant in the same bed with themselves, but in a small adjacent one.

Mr. Glover, surgeon, in Doctors' Commons, London, relates the case of a person who was restored to life after twenty-nine minutes hanging, and continued in good health for many years after.

The principal means used to restore this man to life, were opening the temporal artery and the external jugular, rubbing the back, mouth, and neck, with a quantity of volatile spirits and oil, administering the tobacco clyster by means of lighted pipes and strong frictions of the legs and arms. This course had been continued for about four hours, when an incision was made into the windpipe, and air blown strongly through a canula into the lungs. About twenty minutes after this, the blood at the artery began to run down the face, and a slow pulse was just perceptible at the wrist. The frictions were continued for some time longer—his pulse

became more frequent, and his mouth and nose being irritated with spirits of sal ammoniac, he opened his eyes. Warm cordials were administered to him, and in two days he was so well as to be able to walk eight miles.

These cases are sufficient to show what may be done for the recovery of those unhappy persons who strangle themselves in a fit of despair.

CONVULSION FITS.

CONVULSION FITS often constitute the last scene of acute or chronic disorders. When this is the case, there can remain but small hopes of the patient's recovery; after expiring in a fit, or seeming to expire, some attempts ought always to be made to restore him to life. Infants are most liable to convulsions, and are often carried off very suddenly by one or more fits about the time of teething. There are many well-authenticated accounts of infants having been restored to life after they had, to all appearance, expired in convulsions; but we shall only relate the following instance, mentioned by Dr. Johnson in his pamphlet "On the Practicability of Recovering Persons visibly Dead."

In the parish of St. Clement, in Colchester, a child of six months old, lying upon its mother's lap, having had the breast, was seized with a strong convulsion fit, which lasted so long, and ended with so total a privation of motion in the body, lungs, and pulse, that it was deemed absolutely dead. It was accordingly stripped, laid out, the passing-bell ordered to be tolled, and a coffin to be made; but

a neighbouring gentlewoman, who used to admire the child, hearing of its sudden death, hastened to the house ; and upon examining the child found it not cold, its joints relaxed, and fancied that a glass she held to its mouth and nose was a little damped with the breath ; upon which, she took the child in her lap, sat down before the fire, rubbed it, and kept it in gentle agitation. In a quarter of an hour she felt the heart begin to beat faintly ; she then put a little of the mother's milk into its mouth, continued to rub its palms and soles, found the child begin to move, and the milk was swallowed, and in another quarter of an hour, she had the satisfaction of restoring to its disconsolate mother the babe quite recovered, eager to lay hold of the breast, and able to suck again. The child throve, had no more fits, is grown up, and at present alive."

These means, which are certainly in the power of every person, were sufficient to restore to life an infant to all appearance dead, who in all probability, but for the use of these simple endeavours, would have remained so. There are, however, many other things which might be done, in case the above should not succeed, as rubbing the body with strong spirits, covering it with warm ashes or salts, blowing air into the lungs, throwing up warm stimulating clysters, or the smoke of tobacco into the intestines, and such like.

When children are dead born, or expire soon after the birth, the same means ought to be used for their recovery as if they had expired in circumstances similar to those mentioned above.

These directions may likewise be extended to adults, attention being always paid to the age and other circumstances of the patient.

The foregoing cases and observations, afford sufficient proof of the success, which may attend the endeavours of persons totally ignorant of medicine, in assisting those who are suddenly deprived of life by any accident or disease. Many facts of a similar nature, might be adduced were it necessary; but these it is hoped will be sufficient to call up the attention of the public, and to excite the humane and benevolent to exert their utmost endeavours for the preservation of their fellow men.

The Society for the Recovery of Drowned Persons, instituted at Amsterdam, 1767, had the satisfaction to find that not fewer than 150 persons, in the space of four years, had been saved by the means pointed out by them. Many of them owed their preservation to peasants and people of no medical knowledge. But the means used with so much efficacy in recovering drowned persons, are with equal success applicable to a number of cases where the powers of life seem in reality to be only suspended, and to remain capable of renewing all their functions on being put into motion again. It is shocking to reflect that for want of this consideration many persons have been committed to the grave, in whom the principles of life might have been revived.

The cases wherein such endeavours are most likely to be attended with success, are all those called sudden deaths from an invisible cause, as apoplexies, hysterics, faintings, and many other dis-

orders, wherein persons, in a moment, sink down and expire. The various casualties in which they may be tried are—suffocations from the sulphurous damps of mines, coal-pits, &c. ; the unwholesome air of long unopened wells or caverns; the noxious vapours arising from fermenting liquors, the fumes of burning charcoal, sulphurous mineral acids, arsenical effluvia, &c.

The various accidents of drowning, strangling, and apparent deaths by blows, falls, hunger, cold, &c. likewise furnish opportunities of trying such endeavours. Those, perhaps, who to appearance are killed by lightning, or by any violent agitation of the passions, as fear, joy, surprise, and such like, may also be frequently recovered by the use of proper means ; as blowing strongly into their lungs, &c.

OF SUBSTANCES STOPPED BETWEEN THE MOUTH AND STOMACH.

Though accidents of this kind are very common and extremely dangerous, yet they are generally the effect of carelessness. Children should be taught to chew their food well, and to put nothing into their mouths which it would be dangerous for them to swallow.

When any substance is detained in the gullet there are two ways of removing it, viz., either by extracting it or pushing it down. The safest and most certain way is to extract it, but this is not always the easiest, it may therefore be more eligible sometimes to thrust it down, especially when the obstructing body is of such a nature that there is no danger from its reception into the stomach. The substances which may be pushed down without danger, are all common nourishing ones, as bread, flesh, fruit, and the like. All indigestible bodies, such as cork, wood, bones, pieces of metal, and such like, ought, if possible to be extracted, especially if these bones be sharp pointed, as pins, needles, fish-bones, bits of glass, &c.

When such substances have not passed in too deep we should endeavour to extract them with our

fingers, which method often succeeds. When they are lower we must make use of nippers, or a small pair of forceps, such as surgeons use. But this attempt to extract rarely succeeds if the substance be of a flexible nature, and has descended far into the gullet.

If the fingers or nippers fail, or cannot be duly applied, crotchetts a (kind of hook) must be employed. These may be made at once by bending a pretty strong wire at one end. It must be introduced in the flat way, and for the better conducting it there should likewise be a curve or bending at the end it is held by, to serve as a kind of handle to it, which has this further use that it may be secured by a string tied to it, a circumstance not to be omitted in any instrument employed on such occasions, to avoid such ill accidents as have sometimes ensued from these instruments slipping out of the operator's hand. After the crotchet has passed below the substance that obstructs the passage, it is drawn up again and hooks up the body along with it. The crochet is also very convenient when a substance somewhat flexible, as a pin or a fish-bone, sticks across the gullet, the hook in such cases seizing them about their middle part crooks and thus disengages them, or if they are very brittle substances serves to break them.

When the obstructing bodies are small, and only stop up a part of the passage, and which may either easily elude the hook, or straighten it by their resistance, a kind of ring made either of wire, wool, or silk, may be used ; a piece of fine wire of a proper

length may be bent into a circle, about the middle, of about an inch diameter, and the long unbent sides brought parallel, and near each other: these are to be held in the hand, and the circular part or ring introduced into the gullet, in order to be conducted about the obstructing body, and so to extract it. More flexible rings may be made of wool, thread, silk, or small pack-thread, which may be waxed for their greater strength and consistence. One of these is to be tied fast to a handle of iron wire, whalebone, or any kind of flexible wood, and by this means introduced, in order to surround the obstructing substance and to draw it out. Several of these rings passed through one another, may be used the more certainly, to lay hold of the obstructing body which may be involved by one, if another should miss it.

These rings have one advantage, which is, that when the substance to be extracted is once laid hold of it may then by turning the handle be retained so strongly in the ring thus twisted as to be moved every way, which must in many cases be a considerable advantage.

Another material employed on these unhappy occasions is the sponge; its property of swelling considerably on being wet is the principle foundation of its usefulness here. If any substance is stopped in the gullet, but without filling up the whole passage, a bit of sponge may be introduced (*dry*) into that part which is unstopped and beyond the substance. The sponge soon dilates, and grows larger, in this moist situation, and indeed, the enlargement of it may be

forwarded by making the patient swallow a few drops of water. Afterwards it is to be drawn back by the handle to which it is fastened, and as it is now too large to return through the small cavity, by which it was conveyed in, it draws out the obstructing body along with it.

The compressibility of sponge is another foundation of its usefulness, in such cases. A pretty large piece of sponge may be compressed or squeezed into a small size, by winding a string of tape closely about it, which may be easily unwound and withdrawn after the sponge has been introduced. A bit of sponge may likewise be compressed, by a piece of whalebone split at one end, but this can hardly be introduced in such a manner as not to hurt the patient.

I have often known pins and other sharp bodies which had stuck in the throat, brought up by causing the person to swallow a bit of tough meat, tied to a thread, and drawing it quickly up again, this is safer than swallowing sponge, and will often answer the purpose equally well.

When all these methods prove unsuccessful, there remains one more, which is, to make the patient vomit, but this can scarcely be of any service, unless when such obstructing bodies are simply engaged in, and not hooked or stuck into, the sides of the gullet, as in this case vomiting might occasion further mischief. If the patient can swallow, vomiting may be excited by taking half a drachm, or two scruples of ipecacuanha, in powder, made into a draught.

If he is not able to swallow, an attempt may be made to excite vomiting by tickling his throat with a feather, and if that should not succeed, a clyster of tobacco may be administered. It is made by boiling an ounce of tobacco in a sufficient quantity of water; this has often been found to succeed, when other attempts to excite vomiting had failed.

When the obstructing body is of such a nature that it may with safety be pushed downwards, this may be attempted by means of a wax candle, oiled, and a little heated, so as to make it flexible, or a piece of whalebone, wire, or flexible wood, with a sponge fastened to one end.

Should it be impossible to extract even those bodies which it is dangerous to admit into the stomach, we must then prefer the least of two evils, and rather run the hazard of pushing them down than suffer the patient to perish in a few minutes; and we ought to scruple this resolution the less, as a great many instances have happened where the swallowing of such hurtful and indigestible substances has been followed by no disorder.

Whenever it is manifest that all endeavours either to extract or push down the substance must prove ineffectual, they should be discontinued, because the inflammation occasioned by persisting in them, might be as dangerous as the obstruction itself. Some have died in consequence of the inflammation, even after the body which caused the obstruction had been entirely removed.

While the means recommended above are making

use of, the patient should often swallow, or if he cannot, he should frequently receive, by injection through a crooked tube or pipe that may reach down to the gullet, some emollient liquor, as warm milk and water, barley-water, or a decoction of mallows. Injections of this kind, not only soften and soothe the irritated parts, but when thrown in with force are often more successful in loosening the obstruction than all attempts with instruments.

When, after all our endeavours, we are obliged to leave the obstructing body in the part, the patient must be treated as if he had an inflammatory disease. He should be bled, kept on a low diet, and have his whole neck surrounded with emollient poultices. The like treatment must always be used, if there be any reason to suspect an inflammation of the passages, though the obstructing body be removed.

A proper degree of agitation has sometimes loosened the inherent body more effectually than instruments. Thus, a blow on the back has often forced up a substance which stuck in the gullet: but this is still more proper and efficacious when the substance gets into the windpipe. In this case, vomiting and sneezing are likewise to be excited. Pins which stuck in the gullet, have been frequently discharged by riding on horseback, or in a carriage.

When any indigestible substance has been forced down into the stomach, the patient should use a very mild and smooth diet, consisting chiefly of fruits and farinaceous substances, as puddings, pottage, and soups. He should avoid all heating and irritating

things, as wine, punch, pepper, and such like, and his drink should be milk and water, barley water, or whey.

When the gullet is so strongly and fully closed, that the patient can receive no food by the mouth, he must be nourished by clysters of soup, jelly, and the like.

When the patient is in danger of being immediately suffocated, and all hope of freeing the passage is vanished, so that death seems at hand, if respiration be not restored the operation of *bronchotomy* or opening of the windpipe must be directly performed. This operation is neither difficult to an expert surgeon, nor very painful to the patient, and is often the only method which can be taken to preserve life in these emergencies, but it should only be attempted by persons skilled in surgery.

COUP DE SOLEIL

The Coup de Soleil, or stroke of the sun, which so frequently occurs in warm climates to those who are long exposed under its immediate and powerful influence, seems evidently to be an attack of apoplexy, and is to be treated in the same manner as pointed out in the preceding pages. The application of linen cloths, wetted in cold vinegar and water to the temples, or rather over the whole of the head, having first cut off the hair, may likewise be tried.

It may not be improper to remark here, that as the vital principle frequently remains in a latent state for some time, and as we are yet unacquainted with any certain criterion between positive and apparent death, besides that of putrefaction, some appearances of incipient decomposition should therefore be allowed to take place, in every case of sudden decease before interment. The cessation of circulation and respiration, and coldness with rigidity of the limbs taken separately, are not of sufficient importance, and even when combined leave a slight opening for doubt; but putrefaction is the only certain proof of the occurrence of death, which can be considered as conclusive. Every other circumstance, however strong as presumptive evidence, affords no proof for a positive one.

FROST BITTEN.

If a person has exposed his hands and feet to a very severe cold, the excitability of these parts will be so much accumulated, that if they are brought suddenly near a fire, a violent inflammation, and even a mortification may take place, which has, indeed, often happened; or, at any rate that inflammation called chilblains will be produced from the violent action of the heat upon those parts, but if a person so circumstanced were to put his hands and feet into cold water, very little warmer than the atmosphere to which he had been exposed, or rub them with snow, which is not often colder than 33 degrees, the morbid excitability will gradually be exhausted, and no bad consequences will ensue. When the hands, feet, nose, or any other part of the body have therefore been exposed to violent cold, so as to be frost bitten, they ought at first either to be well rubbed with snow, or to be put into cold water, and afterwards be subjected to warmth in the most gentle and gradual manner.

WHAT TO DO IN CASES OF ACCIDENT.

The two following articles, which have been highly spoken of by medical practitioners, are extracted from "Chambers's Edinburgh Journal," and the suggestions are so useful that they cannot be too widely disseminated :—

FRACTURED BONES.

"There are few accidents more frequent, or more distressing in their results, than those arising from fractured bones; and none in which the attempts at relief afforded by bystanders are fraught with greater danger to the patient. When a person is seen to fall prostrate, the first impulse of the crowd is to raise him up, without stopping to enquire the nature or extent of the accident, and totally overlooking the fact, that the recumbent position is the one chosen by nature as that best adapted for the sick, the weary, and the infirm—as the only position in which they can enjoy perfect rest, without the exercise of any muscular effort. In the case of fracture of any part of the lower extremity, moving the patient from the horizontal position is productive of

great mischief, and a knowledge of this simple fact would, in a majority of cases, avert the necessity of the surgeon's knife, or the patient from permanent lameness, and much subsequent torture.

" The writer's attention was first particularly drawn to this subject by an accident that occurred some years ago to himself. His horse fell with him, and as it happened in a principal London thoroughfare, a crowd immediately gathered round, and the first cry was ' Lift the gentleman up.' Happily for him, his presence of mind had not deserted him, and he enjoined them to desist, as, being a medical man, he best knew how to proceed. In a few moments he discovered that his leg was broken, and then the consequences of being 'lifted up' occurred to him in all their horror. A shutter having been procured, he directed it to be laid down at his side, and moving very cautiously, so as not to disturb the limb, soon contrived to edge himself upon it; it was then raised by four of the bystanders, and in this manner was carried to his residence.

" A few moments' consideration will convince us of the impropriety of raising the body from the ground. It may readily be conceived that, by preserving the horizontal position, if the limb be straight, encased as it is by its various muscles and integuments, the broken bone will remain in its natural situation; but that, by raising the body (and consequently the leg), we make a lever of the upper half of the bone, the broken point of which becomes the *fulcrum*, and turns at right angles with the lower half, which, having lost its continuity of support, is

disposed to preserve its original posture; and that by this, although the skin may not in every case be actually torn, still there must be an approximation towards it, and that the surrounding parts must be more or less lacerated. Should the skin be torn, the simple fracture, in the language of surgery, becomes a compound one, the inconvenience to the patient more severe, and the chances of recovery considerably lessened.

"The possible mischief, and consequent danger, does not rest here. One of the arteries of the limb may be wounded by a point of the fractured bone, and then the danger is much increased. The arteries gradually increase in size from the foot upwards, and above the knee unite into one trunk or main artery, any laceration of which is productive of the worst consequences. Even in the foot they are large enough, if the bleeding be permitted to continue, to produce fatal results, although in that case time enough is generally obtained to arrest the hemorrhage. But should the thigh be fractured, and the femoral, or main artery, of the limb be wounded, the flow of blood is so great, that if not immediately stopped, the patient's life may be lost in three minutes.

"The femoral artery takes the course of, and runs parallel to, the thigh bone; and when that is broken, it will readily be seen how likely it is to be pierced by a spicula of bone, or one of its broken points; and this indeed frequently happens.

"It now remains for us to consider what we are called upon to do in accidents of this nature. In the

first place, do not attempt to alter the position from that in which the patient falls; that is, supposing the limb be not bent. Administer a glass of wine, or spirit and water, obtained from the nearest good Samaritan (and one will easily be found); next, should the accident occur in a crowded thoroughfare, let a ring be formed, to prevent the sufferer from being pressed upon or run over. In a few moments, if his senses have been spared, he will be able to say where he is hurt, by gently moving his limbs. A shutter should now be obtained; and if he possesses sufficient nerve, it will be best, as in the writer's case, for him gradually to edge himself upon it, as he will best know what degree of motion he can bear without pain. If he is unable to do this, one of the bystanders must proceed to assist him, by supporting the injured limb.

" It is necessary to observe great caution in doing this. Suppose, for instance, the limb be raised by lifting the foot, if we refer to the observations already made, we shall perceive the same consequences will occur as if the person were raised from the ground. It is therefore necessary to remember, from the first moment of the accident to the last before the cure, that in raising a broken limb, care must be taken to use both hands, the one placed below, and the other above the point of fracture, as if the limb were in two separate pieces, and but slightly held together.

" It may happen that the patient is insensible, and the seat of injury not obvious. He may be suffering from compression of the brain, or concussion,

or fracture of the skull or spine, or may have sustained some internal and severe injury. In such cases the worst consequences are always to be apprehended, and the sufferer must be treated with the utmost tenderness. If the power of swallowing remain (which may be known by pouring a little water into the mouth), a little wine, or spirit and water, may invariably be given, and this is all that is necessary: great mischief often arises from doing too much. Let the patient be placed upon a litter, and carried home, or to the nearest hospital, with great care and tenderness.

" To return to the case of fractured leg. Before placing the patient in bed, be careful that every thing is well prepared for his reception, as he will have to remain there at least one month without moving the broken limb. It is of great importance to have the bed so hard and smooth, as to receive no impression from the weight of the body. A small French bedstead, wide enough for one person only, will be found most convenient, a lath bottom being indispensable; if this cannot be had, an ironing-board must be placed on the sacking, and on this a horse-hair mattress, covered by a blanket, over which nail down the sheet tightly on both sides.

" In removing the patient from the shutter, place it on a line, and level with the bed, and let him shift himself upon it, as we have before described. Before this removal, splints had better be applied to the limb, as it can then be supported with less pain to the fractured parts.

" *Fractures of the arm and forearm* are in general

more easily cured than those of the lower extremity, although the future freedom of the forearm depends in a great measure on the tact and talent of the surgeon. They, of course, do not involve the necessity of maintaining the recumbent position ; and all that is necessary previous to professional attendance is, the placing the arm in a sling or half handkerchief, which should extend from the elbow to the wrist.

“ *Setting a broken limb* means nothing more than placing the fractured ends of the bone opposite each other, and retaining them there by the application of splints made of wood or mill-board. Much misapprehension prevails on this point ; it is generally considered as a formidable operation, requiring to be performed as soon after the accident as possible. When the fracture happens to be a compound one, with one end of the bone perhaps protruding through the skin, it is then desirable to reduce it as soon as possible ; but otherwise, it may be postponed until the bed is fully prepared for the patient’s future requirements.

“ In closing this paper, the writer cannot help adverting to two points of great importance in the treatment of fractures, although in doing so he is aware he is trespassing beyond the limits he has prescribed for himself ; they are, on the impropriety of blood-letting, and the use of cold applications, during any period of the subsequent treatment. Bleeding by some is had recourse to to *prevent inflammation* ; this it will not do : and the proof is, that uniformly, the more delicate the subject, the greater is the degree of susceptibility to its attacks.

But in fractures, we have really no inflammation to dread, nor blood to spare, for nature will require more than her usual supply to repair the injury sustained, and, if needlessly subtracted, the period of cure will be proportionably prolonged.

"With respect to cold applications, we do not sufficiently discriminate the nature of the complaint for which they are used. For pain arising from inflammatory action, cold is an excellent application; but for pain arising from contusion of parts, warm fomentations are by far the most soothing and efficient. It is a trite observation, that old fractures are as sensitive to atmospheric changes as the barometer. Where warmth alone has been used, the writer has never known this to occur."

BLOOD-LETTING.

“ Now, as in former times, there is hardly any accident in which the person consulted as to the treatment, would not instantly and fearlessly recommend blood-letting from the arm. It is therefore an important point to decide whether a remedy so universally recommended, and so implicitly relied on, is in every case advantageous; and whether there are not, on the contrary, cases in which it may be positively dangerous.

“ It must certainly be admitted that the practice of general, or rather indiscriminate blood-letting, has in its favour all the authority which high antiquity may give. In the middle ages, the only physicians were to be found among the monks. As most of these were, by the rules of their order, prevented from quitting their monasteries, that were consequently incapable of attending accidents and many serious diseases, they delegated their medical functions to the surgeons of those days, who, however, were contented with the humble rank of tonsors, or, vulgarly speaking, barbers. That blood-letting was considered by these men as the principal exercise of their art, may be easily seen from the *signs* which they adopted to denote their occupation; *the pole*, or bleeding staff, with painted fillet, and *the barber's basin* ‘lined with red rag to look like

blood' being equally significant emblems of their calling.

"When the Reformation swept away the poor man's physician, the monk, the barber still remained; and the mass of people, deprived of their only source of medical knowledge and medical remedies, were driven to the universal phlebotomy practised by that operator. To this cause is no doubt to be ascribed the custom existing in this country of indiscriminate bleeding. Many persons make a point of being bled in the spring and fall of the year, not as a remedy for any particular disease, but as a general precautionary measure.

"When I was serving my indentures, now some thirty years ago, we bled the poor gratuitously every Sunday morning. Great was the number of applications; but rarely, if ever, were we called upon to give an opinion as to the necessity or propriety of the operation. Nor has the practice been restricted to the human race: the veterinary surgeon, or rather farrier, has been equally zealous in the cause with the barber of old; and all animals, no matter what the complaint, exhaustion or plethora, whether proceeding from over-work or over-feeding, inflammation or depression, in all cases was the phleme applied alike, and in the same rude way; the blood being suffered to fall unmeasured to the ground, as recklessly as though the operator possessed the power to restore that which he so freely abstracted.

"In most cases, if the general bleeder were asked to give some reasons for the operation, he would not know where to find them; not in medical books or

lectures certainly : the law, if it do exist, is a '*lex non scripta*' ; and perhaps the best thing he could say would be, 'that it is a popular practice, and popular opinion forced him to it.' Surely this is a sorry excuse for one pretending to scientific knowledge and medical responsibility.

"The value of blood-letting in all inflammatory diseases, and in most cases of congestion, is too well established both in theory and practice to admit of the slightest doubt. But this very value which it possesses is another reason why it be not abused ; for it is clear that the indiscriminate practice of blood-letting is the reason which has made certain members of the profession object to it altogether, even in those cases just mentioned.

"It is highly important the public should know that it is only in cases of inflammation and congestion that blood-letting is permissible, and as such do never arise suddenly, *in no cases therefore of accident or suspended animation in its various forms is it ever to be used.*

"To explain the reason of this rule, it will be necessary to describe more minutely the nature, or rather the immediate consequences, of accidents in general.

"In all cases of sudden and severe violence, partial or complete insensibility is produced ; the surface of the body will be found pale, bloodless, and cold ; the pulsation feeble, if not altogether imperceptible ; the brain, being for the time paralysed by the shock, the heart ceases to beat and the arteries to pulsate. *The blood, therefore, does not receive its revivifying*

properties from the lungs, which also become inactive, from the respiratory muscles being deprived of their nervous influence ; the veins, however, not so immediately depending on the vital powers of the heart, still continue to return blood unfit to sustain life to that organ, which consequently becomes loaded with this black and impure fluid.

" If the state of suspended function we are now considering were caused by the presence of the black blood with which the heart is loaded, it would certainly be a valid reason for venesection ; but as the presence of such blood is not the cause, but the effect of the cessation of nervous energy by depletion, we should only increase the debility, and probably break the slender thread by which life is suspended.

" It is curious to observe how many of those wise precautions, which Providence has adopted for the preservation of life, are looked upon as the direct cause of death ! Thus, when either from hemorrhage, or during the temporary cessation of vital energy which sometimes occurs, and is marked by the presence of syncope or fainting, blood will not flow on the opening of a vein ; this, which in the case of hemorrhage, by affording time to arrest the bleeding, often saves the patient's life, and which in all cases should be looked upon as an effort of nature to rally her feeble powers, is here deplored as a most unfortunate event. How often do we read in accounts of accidents, that ' a talented surgeon was called in, who attempted to bleed, but, alas ! in vain ; ' as if the success of the operation would have retarded that death which in fact it could only have hastened.

"What, then, is to be done at this moment of danger? Stimuli are clearly the most obvious remedies; and as one of the most easily procured and most efficacious brandy naturally suggests itself. If the power of swallowing remains, at once give brandy (or any other spirit) in warm water. *Do not alter the recumbent position of the body.* Apply warmth either in bed or bath, and in extreme cases use artificial respiration; in short, proceed in the same way as if the patient were being recovered from drowning.

"After a short time, if the remedies have been promptly applied, the heart resumes its functions, the skin its heat, and the brain its *vital* sensibility. It is now that the skill and attention of the surgeon are eminently required; for the too rapid re-action of the system often produces dangerous inflammation. To prevent this justly dreaded evil, perfect rest, absence of stimuli, abstemious diet, and medicinal remedies, are required. Should these fail, then, *but not before*, is bleeding to be employed.

"The general rules then to be borne in mind respecting accidents, in order to make ourselves useful at the moment of danger, are—*1st*, That in all accidents, the first symptoms are those of depression, and consequently stimuli are required. *2d*, That all unnecessary motion, particularly raising the patient from the recumbent position, is to be avoided.*

* The blood, although a living fluid, is governed by the laws of motion of fluids in general. It therefore flows more freely in a horizontal than an upright position. Where hemorrhage has occurred, or whenever great debility is present, this is a point of the greatest importance to attend to. The heart may retain sufficient power to send the blood

"The only case of accident (if accident it can be called) opposed to such treatment is that of apoplexy. Here, however, the whole train of symptoms is entirely opposite, and cannot be mistaken for those above-described. The face is suffused and tinged with purple blood, the heart beats more strongly than in health, and the heat of the body is increased rather than diminished—such symptoms are evident proofs of the necessity of blood-letting. In such cases raise the body to the sitting posture, to lessen the volume of blood thrown *to* the brain; lay bare the throat, to remove any obstruction to the return of blood *from* the brain; and pour cold water on the head in a high and *continuous* stream, until medical assistance arrives."

the brain in the recumbent, although not in the erect position; and, consequently, many a person in these circumstances, in attempting to rise up in bed, has sunk back lifeless on the pillow.

APPENDIX.

In the foregoing pages the various casualties of human nature are treated by *domestic remedies only*; such means being always within reach; but other remedies of a more scientific nature may be preferred by those who have them at command, but all which the Author believes to be by far less efficient than the domestic remedies already given. With a view to afford this option to the purchasers of this little work, the Author has selected a few passages from Dr. THOMAS's excellent work, "The Modern Practice of Physic," which may enable them to treat the various cases without the aid of a medical practitioner. They should be carefully read, that the substance of them may be impressed on the mind, for we know not whose life we may be enabled to save by the possession of such knowledge.

SCALDS AND BURNS.

In all accidents from Scalds and Burns it seems to be of the utmost importance to apply a remedy *at the instant*, for by this means the violent anguish is allayed and the vesication, which, in scalds at least is usually so considerable as to lay the foundation for a tedious curative process, is in a great degree prevented. Of the remedies most quickly to be procured on such occasions, plunging the part which has sustained the accident without a moment's delay into very cold water, or pumping upon it is of the greatest service. The transition from torture to ease will be truly rapid. Water is always at hand, and after proper immersions in it for a due length of time, it may be sufficient to cover the injured parts with linen rags moistened therewith, passing over them from time to time streams of air, by means of a small tube or bellows, until a sense of freezing or a considerable degree of cold arises. By this simple process a large piece of skin that has been burnt to the appearance of charring, and surrounded by a high degree of inflammation, has been perfectly cured in the course of a short time, no sloughing or ulceration taking place, but the crust coming off dry and leaving a sound surface.

Instead of the application of cold water, ice, and the other soothing means just mentioned, a plan of a directly opposite nature has been recommended by Dr. Kentish. He advises to apply *stimulants* externally, such as oil of turpentine, the liquid volatile alkali, and æther, so managed as to avoid the cooling process of evaporation.

In their application we are directed to proceed as follows:—The injured parts are to be bathed two or three times over with rectified spirit, camphorated spirit, or oil of turpentine, heated by standing in hot water. After this a liniment is to be applied on soft cloth composed of the *ceratum resinae* softened with oil of turpentine. This liniment is to be renewed only twice in twenty-four hours, and at the second dressing the parts are to be washed with proof spirit or *tinctura opii* made warm. When a secretion of pus takes place, milder applications must be made till the cure is effected.

To excite the system at the same time, he recommends the *internal* use of æther, brandy, opium, and other stimulants which are to be given in proportion to the degree of injury, immediately after the accident, and to be repeated once or twice within the first twelve hours, and afterwards wine or ale till suppuration takes place, when it will be no longer necessary to excite the system.

On this mode of treatment so highly spoken of by Dr. Kentish, I have to remark that it requires further experience and the concurrent testimony of other practitioners. Mr. Bell has indeed lately

favoured us with some observations which tend greatly to recommend it. His words are:—"The superiority of the stimulating practice is manifested in this, that when the essential oil of turpentine is applied to a scald or a burnt place, relief is, in most cases that I have seen, produced within half an hour, provided that the remedy is made use of as soon after the accident as possible; nor have I observed any case under the above circumstances where the pain was protracted more than two hours."

"In several slight cases where I have seen cold water made use of, it always requires six and not unfrequently eight hours to free the sufferer from agony; for the moment the application of cold water ceased the pain returned with much greater violence." He adds, "I recollect a case which an eminent surgeon in Newcastle, Mr. Anderson, communicated to Dr. Kentish, more than two years ago, and which is most decidedly in favour of what is here advanced. A lady had both her arms severely scalded with boiling water, from above the elbows down to the finger ends. The oil of turpentine was applied to one arm soon after the accident and the other plunged into cold water, which was renewed as often as it became warm. That arm to which the oil of turpentine was applied became perfectly easy in about half an hour, the other continued to give pain when taken out of the water, even for an instant, for more than six hours; and, as far as I recollect, it required a much longer time for its cure than the other."

By further information from Dr. Kentish, we are

given to understand that the faculty in his neighbourhood, have almost all adopted his mode of practice, on the fullest conviction of its efficacy.

Mr. Parkinson, of Leicester, is another advocate for the stimulating plan, and speaks highly of the efficacy of rectified spirit, in relieving the pain and inflammation occasioned by burning or scalding any part of the body. The mode of treatment he recommends, is to cover the parts with pieces of bladder, softened by dipping them in warm water, keeping the outer surface constantly wetted with the spirit. He mentions that the pain usually ceases in half an hour, but in deep and extensive burns the application must be continued for twelve or twenty-four hours; at the end of which time the inflammation will be found to be entirely removed. To heal the ulcer, a cerate of wax and oil may be applied.

POISONS.

MINERAL POISONS.

Where arsenic has been administered or taken, perhaps, in a mistake for some other medicine of a similar colour and appearance, a pricking and burning sensation will soon be experienced in the stomach; sudden and excruciating pains will be felt in the bowels; a severe vomiting will arise; the tongue, mouth and throat will become rough and parched; and an unquenchable thirst will prevail, with much anxiety and restlessness.

From all poisons of the mineral class, more or less danger is always to be apprehended, but the degree will ever be in proportion to the quantity swallowed, and to the time which has elapsed previous to any assistance being given.

In all cases of poison, arising either from arsenic, oxymuriate of mercury, lead, or any other mineral that has been swallowed in a liquid or dissolved state; it will be necessary to procure, as speedily as possible, an evacuation of the contents of the

stomach, by means of the pump invented for that purpose, if at hand or soon to be procured, taking care to wash out this viscus well by afterwards ejecting two or three syringes of tepid water, for the more effectual purpose of diluting and bringing away every particle of the poisonous matter. If the poison swallowed be arsenic, then after the ejection of the contents of the stomach, and washing it out with tepid water just described, the patient may take a little lime-water with the view of counter-acting the effects produced by the stay of the poison in the stomach. But, if a machine or pump is not to be obtained quickly, or the poison has been taken or administered in a solid form, as in pudding, dumpling, &c. then the stomach must be emptied immediately, by means of the following emetic:—

“Take Sulphate of Zinc, from fifteen grains to half a drachm;

“Powder of Ipecacuanha ten grains; mix them and let this powder be taken immediately”—

Or,

“Take Tartarised Antimony, two grains; Sulphate of Zinc, from fifteen grains to one scruple;

“Pure water one ounce.”

Mix them for an emetic draught; the patient drinking freely afterwards of diluting liquors, such as a decoction of barley with gum-acaciæ; mutton and veal broths, linseed tea, and milk, in order to wash out the stomach, as well as to sheathe the parts and prevent their being acted upon by the particles of the poisonous matter.

With the same intention, oil is not only frequently administered by the mouth, but likewise thrown up into the intestines in the form of clyster, mixed with a decoction of emollient herbs.

Fresh charcoal powdered fine has (it is affirmed) been found an efficacious medicine in obviating the deleterious effects of arsenic on the stomach and intestines.

In cases where the poison of verdigris has been recently swallowed emetics should first be given, and afterwards cold water gently alkaliised, ought to be drunk in abundance.

After promoting vomiting and neutralising the acid, our next object is to obviate the inflammation likely to ensue, and with this view several leeches and afterwards fomentations should be applied to the abdomen. If prompt relief be not obtained by these means, assisted by a warm bath, blood is to be drawn from the arm in greater or less quantities, according to the urgency of the symptoms. All food is to be prohibited for the time. Diluents such as milk, linseed tea, and gruel, are to be taken plentifully, and laxative clysters injected frequently. During convalescence a return to the usual diet ought to be very gradual.

The success of the treatment of all cases of mineral poison will depend in a great measure on the sort of regimen the patient observes during his convalescence, which is frequently long and painful. He ought to be principally nourished by milk; gruel farinaceous preparations, and nutritive broths. Great

thirst usually accompanies such occurrences, which may be allayed by frequently washing the mouth with cold water, this being preferable to drinking any quantity of watery liquors, lest vomiting should be excited or kept up thereby.

VEGETABLE POISONS.

The following are the indications by which the mushroom tribe that are of a suspected nature, may be distinguished. All those may be regarded as suspicious and of a dangerous quality which grow in marshy-shaded places, as thick forests, where the sun has no access. Their substance is softer, more open, more porous, and moister than edible mushrooms.

They have besides a more disagreeable appearance, and a more or less humid and dirty-looking surface. Those also which are dusky, and change colour when cut, or which exhale a strong unpleasant odour, or have a gaudy colour, or many very distinct hues, particularly if they have been originally covered by an envelope, and are found in shady places, ought not to be eaten. Those which have short bulbous stalks, or fragments of skin adhering to their surface, or which grow rapidly, and corrupt very quickly,

should also be rejected. It has generally been supposed that fungi lose their deleterious properties by being dried, but this is a rule to which there are many exceptions, and which ought, therefore, to be very cautiously admitted.

The symptoms occasioned by all poisonous substances of the vegetable class are, giddiness, confusion of the sight, wildness of the eyes, palpitations, loss of memory and voice, stupor, nausea, vomiting, great distension of the stomach, universal twitchings, and convulsions.

In accidents from vegetable poisons, we must attempt the immediate evacuation of the offending matter from the stomach; and where the opium in a state of solution (as in the *tinctura opii*) has been swallowed in any quantity, either through mistake or with the view of destroying life, its removal will be best effected by employing Mr. Reid's valuable apparatus, or stomach-pump, taking care to wash out the stomach well after the poison has been evacuated, by injecting two or three syringes-full of tepid water, so as to clear it thoroughly of the laudanum. When this machine is not at hand, or promptly to be procured, the stomach must be evacuated of its deleterious contents by the following emetics:—

“Take sulphate of zinc, from 15 grains to half a drachm.

“Powder of Ipecacuanha, 10 grains.

“Mix them, and let this powder be taken immediately.” Or,

"Take tartarised antimony, 2 grains.

"Sulphate of zinc, from 15 grains to 1 scruple.

"Pure water, 1 ounce."

Mix them for an emetic draught, and this may be followed by large draughts of an infusion of mustard, together with frequent irritations of the fauces by a feather, with a view of exciting the full action of the stomach to throw up the poison. Where the patient is in a state of complete insensibility, and incapable of swallowing, the emetic solution may be injected into the stomach by means of an elastic gum catheter, introduced into the œsophagus from the right nostril. It is, however, only quickly after opium, or any other powerful narcotic, has been swallowed that an emetic can be given with advantage, as the patient's efforts in vomiting might increase the dangerous determination of blood to the head.

In some cases of poison by opium, or such other powerful sedatives, occasioning great torpor in the stomach, so as to resist the effects of even strong emetics introduced into that organ, a scruple or half a drachm of tartarised antimony dissolved in a little water and thrown up the intestines in the form of a clyster, has excited vomiting, and at the same time freely evacuated the entire alimentary tube. In very obstinate constipations, 8 or 10 grains of the medicine administered in this way will commonly be found sufficient to effect the desired purpose.

To counteract the effects of the poison the patient should be made to drink, if possible, after vomiting

has been excited, but not before, of liquors strongly acidulated with the juice of lemons, vinegar, or sulphuric acid, giving the preference, however, to the former. These fluids should be given in small doses and be repeated every ten minutes.

Contrary to the generally received opinion, that vinegar and the vegetable acids are antidotes to the poison of opium, a French writer concludes from the results of a series of experiments upon dogs, that these acids aggravate the symptoms of poisoning by opium, by dissolving the greater quantity, and thereby increasing its narcotic power, when the poison has not been ejected by vomiting. But he found if the poison has been vomited, that then vinegar and vegetable acids possess the property of diminishing the symptoms of the poison, and even altogether overcoming them. No experiments, however, have been made upon the human body of the like nature, to prove whether a similar result would ensue. It will, however, be most advisable to excite vomiting by a powerful emetic previous to a use of acids.

For the purpose of rousing the system from a state of torpor, particularly in cases where an immediate dose of laudanum, or opium, has been taken, the patient is to be kept in constant motion on his legs, if capable of standing, but if not, by frequently shaking and moving his body. We may at the same time assiduously rub different parts of it with warm salt, and other stimulating applications. If these means fail, the cold effusion of water copiously employed, and directed chiefly on the head, neck, and

chest, may be attended with better success, in addition to which means it has been recommended to stimulate different parts of the body with cowhage. By these the patient will be often roused from a state of perfect stupor, so as to enable his medical attendant to give him a strong emetic, and other medicines which may be deemed necessary to counteract the effects of the poison.

There can be no doubt but that strong stimulants will be necessary as soon as the effects of the one constituting the disease are observed to be subsiding, and the system discovers marks of sinking. In this state we ought, therefore, not only to employ frictions externally with salt, as has been directed, and excite the action of the intestinal tube by irritating clysters, but we should give ammonia with as much brandy as can be got down into the stomach, even by teaspoonfuls at a time.

Cases of poisoning by henbane, and other vegetable narcotics, require much the same kind of treatment as those by opium, or its preparations.

In cases of poisoning by fungi, Mons. Orfila advises that the stomach and bowels should be first cleared as quickly as possible by a mixture composed of three or four grains of tartarised antimony, twenty-four grains of ipecacuanha, and from six drachms to one ounce of the sulphate of soda, with a proportionate quantity of water. Castor oil may be afterwards given, and likewise purgative clysters. The poison being freely evacuated, spoonfuls of a portion containing a large dose of æther should then

frequently be swallowed, and recourse be had to mucilages and other demulcents, should the patient complain of any pain in the abdomen. If the poison, however, has been taken long before the practitioner is required, and inflammation has already come on, then such evacuants would not be proper; bleeding and other antiphlogistic means must be resorted to.

Vinegar is useful only when the poisonous fungus has been expelled by vomiting, but as long as it remains in the stomach the reverse is said by this able writer, to be the case, as the acid dissolves the poisonous principles, and thereby facilitates its absorption. Common salt acts in the same manner as vinegar, and, therefore, requires to be employed under the same limitations. Sulphuric æther, as it also takes up the poisonous part of the fungi, should not be used previous to the evacuation of the stomach, but afterwards it will be of great utility. Volatile alkali is more hurtful than salutary, and oil, butter, and milk, are useless in this kind of poison.

Several cases of accidental death have of late occurred from taking oxalic acid in a mistake for common purging salts, to which it indeed bears a strong resemblance. This acid is used in various domestic purposes, particularly for cleaning boot-tops, and other articles of leather, and persons using it are too apt to leave it about in a careless manner.

Of all the chemical antidotes to the poison of oxalic acid, magnesia appears to be the best, and it is

even preferable to the carbonate of lime, which is apt to occasion considerable inconvenience on account of the sudden extrication of a large quantity of carbonic acid gas. Magnesia will afford nearly instantaneous relief from the burning pain in the stomach, and if it be administered very early may prove an effectual antidote, but like all other antidotes will be of little use after the delay of many minutes.

AERIAL POISONS.

The external appearances of persons suffocated, by the deleterious fumes arising from charcoal, coke, or fermenting liquors, (carbonic acid gas), as well as in consequence of sleeping in unventilated apartments, or respiration the foul air of wells, privies, caverns and mines, are as follows—The head, face, and neck are swollen ; the eyes are propted from their sockets ; the tongue is protruded at one side of the mouth ; the jaws are firmly closed ; the face is of a livid, and the lips are of a deep blue colour ; the abdomen is inflated ; the body is insensible to pain, and the person appears to be in a profound sleep.

The first symptoms which the patient experiences on inhaling air vitiated with these deleterious fumes, are headache, lethargy, fainting, convulsions, and general torpor.

Immediately on discovering a person who has been suffocated by any kind of deleterious fume, the windows and doors ought to be thrown open, and the body undressed and exposed freely to cold air, being supported at the same time in a leaning posture on a chair. After a little time it must be covered with flannel, or blankets, the face be sprinkled with vinegar, and the pit of the stomach with cold water. Vinegar properly diluted with cold water may be introduced into it, through a flexible catheter. The legs may also be put into a cold bath, and as it is a well known fact, that the recovery of the dogs which are made the subjects of experiment in the Grotto del Cani, is much favoured by their being plunged into a neighbouring lake, possibly a sudden immersion of the whole body in cold water, may be of service. After each application of vinegar and water, the skin ought to be rubbed with flannel, or a soft brush; the temples and inside of the nostrils be stimulated, by applying volatile spirits, and bottles filled with warm water be laid to the soles of the feet, then leaving the person for a few minutes in an undisturbed state. Farther clysters consisting of vinegar and water, will be useful; and on the return of life, an inclination to vomit should be promoted by a feather dipped in oil, while gentle friction is continued at intervals. The first symptoms indicating this happy change will be foaming at the mouth, and shivering of the whole body, especially after effusions of cold water.

Where the means which have been mentioned

fail in reanimating the patient, it would be advisable to employ the united powers of electricity, or galvanism ; repeated shocks of either of which, particularly the latter, may be passed through the chest. Blood letting, and the artificial introduction of air into the lungs, by means of a pipe, or bellows adapted for the purpose, are also to be tried. If these efforts prove successful, so that the patient seems again to breathe, he may then inhale oxygen gas. When he is able to swallow, the most proper drink will be vinegar and water, or some other acidulated liquor.

The body should not be deserted while there is any hope, and hope should not be abandoned speedily, as persons have recovered, after lying in an insensible state for some days.

Pits, wells, deep vaults, &c. should never be entered immediately after they are opened. It will be a good precaution, first, to let down a lighted torch or candle, for where these will not burn, animal life cannot long be sustained.

In destroying the baneful properties of the gases developed from animal putrefaction, such as emptying large privies, lime has a very powerful effect. A day or two prior to emptying the privy, it will be advisable to throw in a bushel of lime, at several times, agitating the contents afterwards with a long pole—too short, however, to reach to the bottom of the pit or fosse—during the operation a vivid ammonical odour will be emitted. Afterwards a little of the chlorate of lime may be thrown in, and the

whole mass agitated as before. The experiment was tried upon emptying the Fosses d'Aisance, in Paris, which had not been cleansed out for eighteen years, and perfectly succeeded; the nightmen employed in the operation having sustained no ill effects from it.

ANIMAL POISONS.

Prussic acid, being artificially obtained by the decomposition of animal substances, is generally deemed an animal acid, but it exists in a natural state in bitter almonds, the kernels of apricots, the leaves of laurel, and peach blossoms, from which it may be extracted by distillation. It has a sweet taste, smells like bitter almonds, and is highly poisonous in improper doses, producing the same effect on the animal system as laurel water; such as convulsions, epilepsy, paralysis and death, but in the dose of two or three drops is a valuable medicine, in the whooping and other convulsive coughs, and has been supposed serviceable in phthisis.

Alkaline salts, and other stimulants, are proper remedies for an over-dose of Prussic acid. The spirit ammonia, largely diluted with water, should be forced down the throat to the extent of two or three

In this country some kinds of fish, such as eels, salmon, herrings, and in peculiar constitutions, mussels, lampreys, and even lobsters, independently of their putrescence, give a singular irritation of the system; and during their digestion in the stomach, occasion a considerable efflorescence on the skin, sometimes partial, and at other times over the whole body; sometimes with a considerable febrile disorder, and at other times with very little.

The cure, in affections of this nature, is, first, to procure a discharge of the poison as quickly as possible; and, secondly, to counteract or alleviate the effects that arise from it.

The first of these intentions is to be answered by giving a smart emetic of tartarised antimony or the sulphate of zinc, together with copious draughts of diluent liquors, as advised under the head of Mineral Poisons.

To answer the second intention, we must employ such remedies as have been found to possess a power of counteracting the poison in some degree. Spirituous liquors and other strong cordials have long been supposed to have a considerable power of obviating the deleterious effects of poisonous fish. The conclusion is, I think, well grounded, as it has been observed in most cases that those who have taken a small quantity of rum or brandy, after eating fish of this nature, have suffered considerably less than those who neglected that precaution.







